

WHAT IS CLAIMED IS:

1. A speaker comprising:

a diaphragm arranged to vibrate in a direction extending along a surface of the speaker so as to emit sound waves in a vibration direction of the diaphragm; and

at least one wall member arranged on a sound-wave emission side of the diaphragm; wherein

the at least one wall member and the diaphragm are secured to each other, and the wall member vibrates along with the vibration of the diaphragm.

2. The speaker according to Claim 1, wherein the inner surface of the at least one wall member is arranged substantially parallel to the vibration direction of the diaphragm.

3. The speaker according to Claim 1, wherein the at least one wall member includes a frame surrounding the sound-wave emission side of the diaphragm.

4. The speaker according to Claim 1, wherein the at least one wall member has a cross-sectional shape that is substantially the same as a shape of a rim of the sound-wave emission surface of the diaphragm.

5. The speaker according to Claim 1, wherein the at least one wall member includes a plurality of wall members that are

arranged concentrically with respect to a center of the diaphragm.

6. The speaker according to Claim 1, wherein a height of the at least one wall member is substantially the same as a maximum amplitude of the diaphragm.

7. A speaker comprising:

a diaphragm arranged to vibrate in a direction extending along a surface of the speaker so as to emit sound waves in a vibration direction of the diaphragm; and

a plurality of tubular elements touching and arranged side by side on a sound-wave emission side of the diaphragm, each of the plurality of tubular elements having an inner surface extending substantially parallel to a vibration direction of the diaphragm; wherein

the plurality of tubular elements and the diaphragm are secured to each other, and the plurality of tubular elements vibrate along with the vibration of the diaphragm.

8. The speaker according to Claim 7, wherein a height of each of the plurality of tubular elements is substantially the same as a maximum amplitude of the diaphragm.

9. A speaker unit comprising:

a cabinet including a surface having an opening therein;

a speaker attached to an inner side of the surface and

aligned with the opening; wherein

the speaker includes:

a diaphragm arranged to vibrate in a direction extending along a surface of the speaker so as to emit sound waves in a vibration direction of the diaphragm; and

at least one wall member arranged on a sound-wave emission side of the diaphragm; wherein

the at least one wall member and the diaphragm are secured to each other, and the wall member vibrates along with the vibration of the diaphragm.

10. The speaker unit according to Claim 9, wherein the inner surface of the at least one wall member is arranged substantially parallel to the vibration direction of the diaphragm.

11. The speaker unit according to Claim 9, wherein the at least one wall member includes a frame surrounding the sound-wave emission side of the diaphragm.

12. The speaker unit according to Claim 9, wherein the at least one wall member has a cross-sectional shape that is substantially the same as a shape of a rim of the sound-wave emission surface of the diaphragm.

13. The speaker unit according to Claim 9, wherein the at

least one wall member includes a plurality of wall members that are arranged concentrically with respect to a center of the diaphragm.

14. The speaker unit according to Claim 9, wherein a height of the at least one wall member is substantially the same as a maximum amplitude of the diaphragm.

15. The speaker unit according to Claim 9, wherein the cabinet has a substantially rectangular box-shaped configuration.

16. A speaker unit comprising:
a cabinet including a surface having an opening therein;
a speaker attached to an inner side of the surface and aligned with the opening; wherein
the speaker includes:

a diaphragm arranged to vibrate in a direction extending along a surface of the speaker so as to emit sound waves in a vibration direction of the diaphragm; and

a plurality of tubular elements touching and arranged side by side on a sound-wave emission side of the diaphragm, each of the plurality of tubular elements having an inner surface extending substantially parallel to a vibration direction of the diaphragm; wherein

the plurality of tubular elements and the diaphragm are secured to each other, and the plurality of tubular elements

vibrate along with the vibration of the diaphragm.

17. The speaker unit according to Claim 16, wherein a height of each of the plurality of tubular elements is substantially the same as a maximum amplitude of the diaphragm.

18. The speaker unit according to Claim 16, wherein the cabinet has a substantially rectangular box-shaped configuration.